Foreword to Solid and Physical Modeling 2017

The 2017 Symposium on Solid and Physical Modeling (SPM 2017) was held in Berkeley, California from Monday, June 19 to Wednesday, June 21, 2017. Since its inception in 1991, the Symposium on Solid and Physical Modeling has been the primary international forum for disseminating research results and exchanging new ideas of applications complete with the relevant mathematical theory of solid modeling, physical modeling, geometric design, analysis, visualization, manufacturing, and fabrication. This year SPM was co-located with the Shape Modeling International (SMI) Symposium and the Fabrication and Sculpting Event (FASE) as part of the international convention S3PM 2017 (Shape, Solid, Structure and Physical Modeling).

In response to the call for papers, 60 technical papers from all over the world were submitted for double-blind review by an international program committee. Each submission was assigned to four reviewers from the program committee. After being revised by the authors, conditionally accepted papers underwent a second round of reviewing. A total of 19 papers were selected for plenary presentation and publication as full papers in the special issue of the journal Computer Aided Design (Elsevier). In addition, two recently published papers in Computer Aided Design were invited to present at the SPM conference. SPM also circulated a call for posters and accepted 12 posters for presentation at the conference during the joint day with SMI, which also featured Mini-Symposia and Panel Discussions of interest to both communities.

As in 2016, SPM and SMI participated in the Replicability Stamp initiative. This designation is an additional recognition for authors of accepted papers who are willing to go one step further, and in addition to publishing the paper, provide a complete open-source implementation of their algorithm that can be used to replicate the results presented in their paper. The replicability stamp represents an endorsement of the replicability of the results presented in the paper and the recognition of the service provided to the community by releasing the code. At the time of this writing, the selection process was ongoing. The list of papers with the replicability stamp was provided at the conference and published on the GSRI website.

There were two invited SPM plenary talks by academic luminaries, Kristina Shea (ETH Zürich) and Jean-François Remacle (Université Catholique de Louvain) spanning the multiple disciplines of SPM; the invited SMI plenary talks were by Jonathan R. Shewchuk (University of California, Berkeley) and Hao Li (University of Southern California).

We would like to acknowledge the efforts and contributions of the many people who helped to make this conference a success. Members of the program committee spent countless hours carefully reading and reviewing the submitted papers. The S3PM convention, SPM, and SMI general chairs, Vadim Shapiro, Sara McMains, and Jarek Rossignac, managed to organize two conferences together into one coherent international convention. We would also like to acknowledge the staff at Elsevier for helping with this special issue. Our special thanks go to Vadim Shapiro at Computer-Aided Design and Gail Rodney at Elsevier for supporting this special arrangement with SPM. We also thank all the authors who submitted papers to this conference—their ongoing support made this conference a huge success.

Mario Botsch
University of Bielefeld, Germany

Stefanie Hahmann
Université Grenoble Alpes, Grenoble, France

Jessica Zhang
Carnegie Mellon University (CMU), Pittsburgh, USA

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